ABSTRACT OF THE DISCLOSURE

A deposition method includes contacting a substrate with a first initiation precursor and forming a first portion of an initiation layer on the substrate. At least a part of the substrate is contacted with a second initiation precursor different from the first initiation precursor and a second portion of the initiation layer is formed on the substrate. The substrate may be simultaneously contacted with a plurality of initiation precursors, forming on the substrate and initiation layer comprising components derived from each of the plurality of initiation precursors. An initiation layer may be contacted with a deposition precursor, forming a deposition layer on the initiation layer. The deposition layer may be contacted with a second initiation precursor different from the first initiation precursor forming a second initiation layer over the substrate. Also, a first initiation layer may be formed substantially selectively on a first-type substrate surface relative to a second-type substrate surface and contacted with a deposition precursor, forming a deposition layer substantially selectively over the first-type substrate surface.